NBII Metadata Standard for Web Resources Cataloguing

Standard Developed by:

NBII Program Office

And

Bird Conservation Node California Information Node Central Southwest/Gulf Coast Information Node Fisheries & Aquatic Resources Node Pacific Basin Information Node Pacific Northwest Information Node Southern Appalachian Information Node

Developed: 2002-06

Revised: 2004-02; 2004-08; 2005-04

Element Name	Title
Definition	A name given to a resource or resource component.
Purpose	Provides descriptive context for a resource; major point of entry from search
	engine results.
Obligation	Mandatory
Format	Title: Free text entry
Existing	-
Standards	
Guidelines	Drop the articles "a," "an," or "the" at the beginning of a title
	 ✓ If resource has no official title in the <title> tag or page header, or if the official title poorly describes the resource, the cataloguer has authority to amend the title in the interests of catalogue quality and improved intellectual access to the resource. ✓ Place the most relevant title information at the beginning of the title for better intellectual access; drop corporate or institutional names from the title itself; these can go in Creator or Publisher elements. </th></tr><tr><th>Examples</th><th> "The GLOBE Program" should be catalogued as Title: GLOBE Program "The National Wildlife Federation Backyard Habitat" should be catalogued as Title: Backyard Habitat This enables the key terms to appear first in search returns list. National Wildlife Federation can be placed in the Publisher element. A resource from the University of XYZ having the title "University of XYZ College of Agriculture" and addressing the impacts of the varroa mite on honeybee populations in California should be renamed with a more descriptive title, such as Title: Varroa Mite Impacts on Honeybee Populations in California. "University of XYZ College of Agriculture" will appear in the Publisher element. </th></tr></tbody></table></title>

Element Name	Creator
Definition	The name of the person(s) or organization primarily responsible for the
	intellectual content of the resource.
Purpose	This element allows users to search for a resource by the creator's name.
Obligation	Mandatory
Format	Creator: Free text entry
Existing Standards	 For federal agency names: <u>U.S. Government Manual</u>
Guidelines	 ✓ For personal names: FirstName LastName. ✓ Multiple personal names should be separated by a semi-colon, followed by a space. ✓ For agency, organizational, or institutional names, use full agency name with no abbreviations or acronyms ✓ To indicate a subdivision of the agency or institution, separate entities with a comma ✓ To indicate multiple agencies, separate agencies with a semi-colon ✓ If no author is specifically identified, the Publisher is the default Creator:
Evamples	enter identical data for Creator and Publisher.
Examples	 Creator: Rachel Carson; Stephen Jay Gould; Edmund O. Wilson Creator: United States Geological Survey Creator: Information Center for the Environment, University of California, Davis Creator: United States Fish and Wildlife Service, Division of Migratory Bird Management Creator: United States Geological Survey, Pacific Island Ecosystems Science Center Creator: Houston Advanced Research Center Creator: Conservation Management Institute, Virginia Tech Creator: National Museum of Natural History, Smithsonian Institution Creator: United States Geological Survey; United States Fish and Wildlife Agency, Endangered Species Program; United States Department of Defense, Office of Environmental Information Technology Management

Element	Contributor
Name	
Definition	An entity responsible for making contributions to the content of the resource.
Purpose	This element gives credit to a minor author or an illustrator, photographer, editor, data provider, programmer, etc. A Contributor may be a person or an agency/organization. The cataloguer may optionally choose to delineate the role of the contributor, using parenthetical comments.
Obligation	Optional
Format	Contributor: Free text entry
Existing Standards	See Existing Standards under Creator.
Guidelines	See Guidelines under Creator.
Examples	Contributor: John Mosesso, Jr. (photographer)
	Contributor: Environmental Protection Agency (dataset)
	Contributor: Ron Sepic (editor)
	Contributor: Deanne DiPietro; Allan Hollander

Element Name	Publisher
Definition	The name of the entity responsible for making the resource available.
Purpose	The element establishes responsibility for a resource's publication. It can serve as a contact point for additional information about a resource, and to direct users to related information on a topic or issue. Frequently the Publisher is an agency, organization, corporation, institution, or non-profit; however, it also may be an individual.
Obligation	Mandatory
Format	Publisher: Free text entry
Existing Standards	■ For federal agency names: <u>U.S. Government Manual</u>
Guidelines	 ✓ For Internet resources, the Publisher is often identifiable from the domain name; this is the entity responsible for making the resource available on the Web. ✓ For agency, organizational, or institutional names, use full agency name with no abbreviations or acronyms ✓ To indicate a subdivision of the agency or institution, separate parent entity from child entity with a comma ✓ For personal names: FirstName LastName
Examples	 Publisher: Rachel Carson Publisher: Washington Post Publisher: United States Geological Survey Publisher: Information Center for the Environment University of California, Davis Publisher: United States Fish and Wildlife Service, Division of Migratory Bird Management Publisher: United States Geological Survey, Pacific Island Ecosystems Science Center Publisher: John Wiley and Sons, Inc. Publisher: Ecological Society of America Publisher: National Museum of Natural History, Smithsonian Institution

Element Name	Subject.Controlled
Definition	Keyword terms from a controlled list or thesaurus which accurately describe the subject and the specificity of a resource.
Purpose	This element enables users to locate relevant resources from both a general and a fielded search, and allows them to narrow or expand their search to the specificity of their information needs. Use of a controlled list or thesaurus ensures that all cataloguers are using a common "language" to describe resources, greatly enhancing the consistency and the relevance of documents retrieved by the user.
Obligation	Mandatory
Format	Subject: Free text entries
Existing Standards	 NBII/CSA Thesaurus must be used by all NBII Nodes use only preferred terms from the thesaurus
Guidelines	 ✓ Catalogue to the specificity of the document; if a narrow term is used, there is no need to include the approved broader term. For example, if the term "forest management" specifically applies to the resource being catalogued, there is no need to also include approved broader terms such as "ecosystem management" or "resource management." ✓ Capitalize the first word of each term, as well as all proper nouns ✓ Terms in this field are comma-delimited, with a space after each comma. ✓ Do not include non-preferred terms in this field ✓ To include terms not in the thesaurus, use the "Uncontrolled Subject" field. Only preferred terms occurring in the thesaurus should be included in the Subject field.
Examples	 Subject: Amphibians, Malformations, Contaminants Subject: Urban environments, Watersheds, Contaminants, Subject: Climatic change, Kyoto Protocol

Element Name	Subject.Uncontrolled
Definition	Keyword terms not appearing in the CSA/NBII Biocomplexity Tthesaurus which
	are nevertheless key to describing the subject and the specificity of a resource.
Purpose	This element enables users to locate relevant resources from a general search,
	even though it does not appear in the Biocomplexity Thesaurus.
Obligation	Optional
Format	Subject: Free text entries
Existing Standards	do not include non-preferred terms from the Biocomplexity Thesaurus in this field. Only terms not appearing in the Thesaurus should be included in this field.
Guidelines	 ✓ Terms in this field are comma-delimited, with a space after each comma. ✓ Capitalize the first word of each term, as well as all proper nouns. ✓ Do not include non-preferred terms in this field
Examples	 Uncontrolled Subject: Protocols, Citizen science Uncontrolled Subject: Convention on Biodiversity

Element Name	Description
Definition	An abstract or textual description of the content, scope, and/or purpose of the resource.
Purpose	This element provides the user with crucial context in deciding the relevance of specific documents to an information need. It is also a searchable field, and can aid users who are using generic free text searching, or whose information needs are vaguely understood.
Obligation	Mandatory
Format	Description: Free text entry
Existing Standards	-
Guidelines	An abstract of the resource may include: ✓ Topic or focus ✓ Intended audience or use ✓ Summary of findings ✓ Limitations of use, or conditions of use Remember that a good Description of this resource may already exist: check the HTML source code of the resource to see if the <meta name="description" value=""/> tag has been utilized by the Creator/Publisher. Cataloguers may use this value, augment it, or create their own Description.
Examples	 Description: Global temperature fluctuations, and the resulting alterations to precipitation rates, appear to play a direct role in the declines in some amphibian populations. Research teams have linked low water levels in amphibian wetlands habitats to debilitating outbreaks of stress-induced diseases in frogs. (from FrogWeb) Description: LMS is an evolving application designed to assist in analysis and planning of forest ecosystems by automating the tasks of stand projection, graphical and tabular summarization, stand visualization, and landscape visualization within a cohesive system. (from PNWIN) Description: The Harold L. Lyon Arboretum coordinates, facilitates, and executes research, instruction, and service activities that utilize its collections and resources. Its major emphases are tropical plants, native Hawaiian plants, conservation biology, and Hawaiian ethnobotany. (from PBIN)

Element Name	Resource Identifier
Definition	An unambiguous reference to the resource within a given context.
Purpose	A finding mechanism to provide the user with physical access to the resource. Recommended best practice is to identify the resource by means of a string or number conforming to a formal identification system. For most electronic resources, this will be the Uniform Resource Identifier (a URL, and FTP address, or DOI). For print resources, the identifier may be an ISBN or ISSN. For some resources there will be more than one identification value – for instance, a report available both online and in print.
Obligation	Mandatory
Format	Limited to the following qualifiers and free text values: Resource Identifier: [a URI] (free text value) Resource Identifier: ISBN (free text value) Resource Identifier: ISSN (free text value) Resource Identifier: Other (free text value)
Existing	URI – Uniform Resource Identifier (http:// ftp://)
Standards	ISBN – International Standard Book Number ISSN – International Standard Serial Number
Guidelines	Cataloguers should be allowed to choose more than one qualifier.
Examples	Resource Identifier: http://www.issg.org/database/
	Resource Identifier: ftp://cbi.usgs.gov
	Resource Identifier: http://dx/doi.org/10.4046/j.1523-1739.1999.98075.x
	Resource Identifier: ISSN: 0027-9633
	Resource Identifier: ISBN: 0-471-89736-2
	Resource Identifier: Other: Report# T79138-1

Element	Resource Type
Name	
Definition	The category or genre of the resource.
Purpose	This element allows users to restrict a search to resource of a specific kind. It also provides valuable information regarding the context, scope and purpose of a resource. Cataloguers may select more than one Resource Type from an approved picklist, if appropriate.
Obligation	Mandatory
Format	Resource Type: choose from approved picklist (see NBII Resource Type Definitions document)
Existing Standards	See NBII Resource Type Definitions document
Guidelines	See NBII Resource Type Definitions document
Examples	 Resource Type: Proceedings Resource Type: Case Studies, Management Plans and Reports Resource Type: Internet Map Services, Datasets

Element Name	Resource Format
Definition	The physical or digital manifestation of the resource.
Purpose	Typically, Resource Format may include the media-type or dimensions of the resource. Format may be used to determine the software, hardware or other equipment needed to display or operate the resource. Providing this information to users prior to their physically accessing the resource enables them to determine quickly if they may utilize the resource – partially or completely – from their current hardware and software. Cataloguers may choose more than one Resource Format, if applicable.
Obligation	Mandatory
Format	Resource Format: choose from approved picklist of values (see Appendix B)
Existing Standards Guidelines	See Appendix B for NBII Resource Formats See Appendix B. Use multiple Formats only if they characterize major, independent components of the resource that may require individual equipment to access them. For instance, if the resource is a general Web page which includes 2 illustrative images, do not characterize the Format as URL, GIF; there is no need to include the image format GIF, as Web browsers can interpret and display the image. Alternatively, if a mapping application allows for export of data to an
	Access database, a Resource Format of Mapping Service, MDB would be appropriate.
Examples	 Resource Format: URL Resource Format: DOC Resource Format: XLS Resource Format: ESRI E00 Resource Format: MDB Resource Format: ZIP

Element Name	Rights
Definition	A statement about the rights management of the resource.
Purpose	This element indicates intellectual property rights to the resource, as well as
	any restrictions to accessibility of the resource.
Obligation	Mandatory
Format	Restricted checklist. Default value will be "Copyright held by Publisher"; multiple values may be selected. o Rights: Copyright held by Publisher o Rights: Copyright held by Creator o Rights: Copyright held by Source o Rights: Public Domain
Existing	-
Standards	
Guidelines	Default value is "Copyright held by Publisher."
Examples	See Format.

Element	Language
Name	
Definition	The language(s) of the intellectual content of the resource.
Purpose	While not a primary access point for searching, this field allows a search to be further restricted to resources in a specific language. It also provides information to the user regarding potential intellectual access to the resource.
Obligation	Mandatory
Format	Language: selected from picklist using Existing Standard. Selection of more than one language should be permitted; multiple language codes should be comma-delimited.
Existing	ISO [RFC1766]
Standards	
Guidelines	-
Examples	Language: English
	Language: English, French
	Language: English, French, Spanish

Element Name	Date.Issued
Definition	A date associated with an event in the life cycle of the resource.
Purpose	Typically, Date will be associated with the creation or availability of the resource.
Obligation	Optional
Format	Field entry
	YYYY-MM-DD If no date is entered, the element should either be omitted in the end-user display, or should contain a null value.
Existing	ISO 8601 [W3CDTF]
Standards	100 0001 [1700011]
Guidelines	 ✓ Recommended best practice for encoding the date value is defined in a profile of and follows the YYYY-MM-DD format. ✓ Use "date issued" only for fixed resources such as print or digital versions of news releases, articles, journals, fact sheets, guidelines, standards, and other documents. ✓ Leave blank if the above resources have no issue date It will be difficult, if not impossible, for most nodes to utilize the "date last updated" qualifier for cataloguing web sites, as most electronic resources will continue to be updated long after the Node catalogues them, and this information is unlikely to be captured on a continual basis. Because a "date last updated" entry in the NBII catalogue might lead a user to the erroneous assumption that the resource itself was never updated after the date entered by the NBII cataloguer, the potential for misunderstanding mitigates against the use of this tag for NBII cataloguing of web sites. ✓ If no day is specified, format YYYY-MM may be used. ✓ If neither day nor month is specified, YYYY may be used. ✓ The Date field should not be confused with the Coverage.Temporal field. The Date field indicates a specific/fixed moment in the life cycle of a resource; the date that the version in question was issued. [If multiple versions continue to be available within the resource catalogue, the Relation element should also be employed.] Coverage.Temporal addresses the relation of a time period to the content itself: a range or span of time the content covers.
Examples	2002-06-2820022002-06

Source
A reference to a resource from which the present resource is derived.
The present resource may be derived from the Source resource whole or in part.
Optional
Source: (free text value of a Resource Identifier for the source document, plus
additional bibliographic information, if appropriate.)
Use Existing Standards for Resource Identifier.
Recommended best practice is to reference the resource by means of a string or number conforming to a formal identification system – i.e. a Resource Identifier.
 The referenced resource, the Dublin Core Metadata Element Set 1.1, at http://dublincore.org/documents/dces/, is a component of a larger project, the Dublin Core Metadata Initiative. Therefore, Source: Dublin Core Metadata Initiative http://dublincore.org The referenced resource, "Environmental Contaminants: Factors Affecting Natural Resources" at http://biology.usgs.gov/s+t/SNT/noframe/idx-co.htm, is a component of the print and digital resource, Status.and.org/https://status.and.org/https://s
Source: Smithsonian Institution, National Museum of Natural History

Element Name	Relation
Definition	A reference to a related resource.
Purpose	Identification of other sources that are related to the current resource, and the type of relationship.
Obligation	Optional
Format	Relation: is part of (Resource Identifier) Relation: is version of (Resource Identifier) Relation: is replaced by (Resource Identifier) Relation: replaces (Resource Identifier) Relation: Other (explain)
Existing Standards	See Existing Standards for Resource Identifier element.
Guidelines	Recommended best practice is to reference the resource by means of a string or number conforming to a formal identification system – i.e. a Resource Identifier.
Examples	Replaces http://www.website.org/000123.pdf/

Element Name	Coverage.Temporal
Definition	The temporal scope of a resource.
Purpose	Provides temporal context to the scope of a resource, delineated by a date range. This is especially useful when cataloguing a dataset, to denote the interval during which data was collected. For completed datasets, both a Beginning and an Ending Date are required; for a dataset whose data collection efforts are ongoing, only a Beginning date is required.
Obligation	Mandatory if applicable to your resource
Format	Coverage.Temporal.Beginning YYYY-MM-DD
	Coverage.Temporal.Ending: YYYY-MM-DD
Existing	For date ranges, use Existing Standard ISO 8601 [W3CDTF]
Standards	
Guidelines	Do not confuse Coverage.Temporal with the Date element. Coverage.Temporal should be used only when the resource's intellectual content is characterized by a given <i>interval</i> of time.
Examples	Example 1: A transect was monitored for amphibians from 1 July 1990 to 1 July 1991: Coverage.Temporal.Beginning: 1990-07-01 Coverage.Temporal.Ending: 1995-12-31
	 Example 2: Project FeederWatch, an annual volunteer bird monitoring program, has been collecting observational data on birds present at feeders around the country: Coverage.Temporal.Beginning: 1999-01
	[Note that there is no Coverage.Temporal.Ending Date, as data collection is ongoing.]

Name The geographic extent or scope of the content of the resource. Coverage will typically include spatial location: place name(s) or geographic coordinates. Purpose Use of this element enables geospatial referencing and searching on resource using place names or georeferenced coordinates. Geospatial interfaces to the	
typically include spatial location: place name(s) or geographic coordinates. Purpose Use of this element enables geospatial referencing and searching on resource	
Purpose Use of this element enables geospatial referencing and searching on resource	
	Э
reference catalogue enable users to limit searches to a particular region of	
interest. Obligation Mandatory if applicable	
Obligation Mandatory, if applicable.	
Format Picklist from approved sources	
Coverage.Geographic.Hemisphere:	
Coverage Geographic Country: (one or multiple)	
Coverage Geographic Country: (one or multiple)	
Coverage.Geographic.State: (one or multiple)	
Coverage.Geographic.County: (one or multiple)	
Coverage.Geographic.Coordinates: [option not available in Release 2.0]	
Coverage.Geographic: Not defined Existing Approved place name authorities for NBII:	
Existing Approved place name authorities for NBII: Standards ■ The Geographic Names Information System [GNIS] from USGS	
	_
Federal Information Names Processing Codes [FIPS] from US Census Cooklet Names Server [CNDS] from NIMA	5
■ GeoNet Names Server [GNPS] from NIMA Guidelines ✓ Coverage.Geographic metadata is specific to the scope of the	
	to
resource's geographic area of study or concern; it should <u>not</u> be used	
characterize the origin of the resource itself. For instance, a resource	
published by the University of Texas on lynx populations in Canada	40
would have a geographic coverage metadata for the regions of Cana	ıa,
and no geographic coverage metadata related to Texas.	
Examples Coverage.Geographic.Hemisphere: Northern Hemisphere	
Coverage.Geographic.Continent: North America	
Coverage.Geographic.Country: Canada	
Coverage.Geographic.State: British Columbia, Alberta	

DC.Element	Coverage.Jurisdictional
Name	
Definition	The entity or entities with legal standing or obligation to interpret or apply the
	law, agreement, or binding commitment articulated in the resource.
Purpose	Use of this element enables geospatial referencing and searching on resources,
	using place names or georeferenced coordinates. Geospatial interfaces to the
	reference catalogue enable users to limit searches to a particular region of
	interest.
Obligation	Mandatory if applicable
Format	Free text
	Coverage.Jurisdictional.Entity
Existing	Approved place name authorities for NBII:
Standards	 The Geographic Names Information System [GNIS] from USGS
	 Federal Information Names Processing Codes [FIPS] from US Census
	 GeoNet Names Server [GNPS] from NIMA
Guidelines	✓ Coverage.Jurisdiction metadata is specific to the scope of the
	resource's jurisdiction; that is, where it is legally enforceable.
	✓ Multiple entities should be separated with a semi-colon.
Examples	North American Free Trade Agreement:
-	Coverage.Jurisdictional.Entity: Canada; Mexico; United States
	Canada-United States Air Quality Agreement:
	Coverage.Jurisdictional.Entity: Canada; United States
	Chesapeake Bay Program:
	Coverage.Jurisdictional.Entity: Virginia; Maryland; District of Columbia;
	Pennsylvania
	Directive on the Conservation of Wild Birds:
	Coverage.Jurisdictional.Entity: European Union

Element Name	Scientific Name
Definition	The unequivocal scientific name by which an organism is universally recognized.
Purpose	Establishes a standard name observed by all researchers to describe an organism, and ensures
Obligation	Mandatory if your resource is species-specific
Format	Scientific Name: Genus species
Existing Standards	 The <u>Integrated Taxonomic Information System</u> (ITIS) must be used by all NBII Nodes.
	 If ITIS does not provide coverage for a particular species, an appropriate alternative may be used. Cataloguers must specify the name of the resource.
Guidelines	 ✓ Genus name should be capitalized; species name should be lower case. ✓ Multiple species are comma delimited, with a space after the comma. ✓ If the resource deals with a multiple species within a given genus, use the genus name, followed by spp. (e.g. Rana spp.) ✓ If the resource does not address species-level data, this should be indicated in this field
Examples	 Scientific Name: Rana catesbeiana Scientific Name: Carodacus spp. Scientific Name: Rana catesbeiana, Rana aurora draytonii, Rana luteiventris

Element Name	Common Name
Definition	The name(s) by which an organism is known colloquially.
Purpose	Common names are generally used outside the scientific community to refer to species. Common names for species may vary by region; many organisms are known by more than one common name, but have only one Scientific name. Cataloguing common name provides a useful way for amateur scientists and the general public to search for information about a particular organism.
Obligation	Mandatory if your resource is species-specific
Format	Common Name: Common name(s)
Existing Standards	See Existing Standards for Scientific Name.
Guidelines	✓ Capitalize first word in common name; subsequent words in the name are lower case, with the exception of place-based names
Examples	Common Name: Bullfrog
	Common Name: Finch spp.
	Common Name: Bullfrog, California red-legged frog, Columbia spotted frog
	Common Name: Species-level data not indicated

Element Name	Cataloguing Node
Definition	Official name of the NBII Node performing original cataloguing on a new resource in the NBII catalogue.
Purpose	This element identifies the originating node cataloguing the resource, and serves as a point of reference for questions about the resource and/or the cataloguing process.
Obligation	Mandatory
Format	Cataloguing Node: Full Node Name
Existing Standards	-
Guidelines	✓ Capitalize the first letter of each word in the Node's name, excluding articles.
Examples	 Cataloguing Node: Bird Conservation Node Cataloguing Node: Coral Reefs Project Cataloguing Node: Fisheries and Aquatic Resource Node Cataloguing Node: Gap Analysis Program Cataloguing Node: Great Basin Project Cataloguing Node: Guyda Paraguay Project Cataloguing Node: Invasive Species Information Node Cataloguing Node: NBII Image Gallery Cataloguing Node: NBII Program Office Cataloguing Node: Wildlife Disease Information Node Cataloguing Node: California Information Node Cataloguing Node: Central Southwest Gulf Coast Information Node Cataloguing Node: Northern Rockies Information Node Cataloguing Node: Pacific Basin Information Node Cataloguing Node: Pacific Northwest Information Node Cataloguing Node: Southern Appalachian Information Node Cataloguing Node: Southwest Information Node Cataloguing Node: Southwest Information Node